



Miltenyi Biotec

Neural Tissue Dissociation Kits

Neural Tissue Dissociation Kit (P)
Neural Tissue Dissociation Kit (T)

Order no.
130-092-628
130-093-231

Application note

Selection of Neural Tissue Dissociation Kit subtype in relation to antigen compatibility for subsequent MACS® Cell Separation

Advantages of Neural Tissue Dissociation Kits (P) and (T)

For the gentle dissociation of neural tissues, two Neural Tissue Dissociation Kits based on either papain or trypsin have been developed, offering:

- the efficient generation of single-cell suspensions with high viability
- a two-step enzymatic dissociation protocol plus mechanical dissociation
- consistent dissociation for reproducible results — in less than an hour
- dissociation of human and zebrafish¹ tissues reported with positive results
- optimized for downstream MACS Cell Separation
- optimized dissociation of mouse and rat embryonic, postnatal, and adult whole brain or tissue sections

	Antigen compatibility		
	Antigen	Species	Cell type
Neural Tissue Dissociation Kit (P)	Prominin-1 ²	Mouse	Neural progenitor cells
	CD11b	Human, mouse	Microglia
	CD31 ³	Mouse	Endothelial cells
	O4 ³	Human, mouse, rat	Immature oligodendrocytes, type-2 astrocytes
	CD81 ³	Mouse, rat	Microglia, macrophages, endothelial cells, glia
	A2B5 ²	Human, mouse, rat	Glial-restricted precursors
Neural Tissue Dissociation Kit (T)	Prominin-1	Mouse	Neural progenitor cells
	PSA-NCAM	Human, mouse, rat	Neuronal-restricted precursors, oligodendrocyte progenitors
	CD11b	Human, mouse	Microglia
	CD24	Mouse	Neuronal precursors, ependymal cells
	CD271 (LNGFR)	Human	Schwann cells, motor neurons
	A2B5	Human, mouse, rat	Glial-restricted precursors
	CD105	Mouse	Endothelial cells
	Ter-119	Mouse	Erythrocytes

Antigen compatibility of Neural Tissue Dissociation Kits

The table shows the recommended kit regarding antigen compatibility for subsequent MACS Cell Separation. For epitopes not yet specified in the table, the initial use of the Neural Tissue Dissociation Kit (P) is recommended. Any feedback regarding epitope sensitivity of other antigens would be appreciated. Epitope sensitivities have been tested for antibodies available from Miltenyi Biotec.

- 1 Due to the increased clump formation of zebrafish cells during the dissociation procedure, all steps are recommended to be performed at RT. In case of continued clump formation, further addition of Solution 3 and 4 are advised. Please refer to Neural Tissue Dissociation Kit data sheet for protocol details.
- 2 Slight epitope sensitivity with use of the trypsin-based kit; therefore, use of the papain-based kit recommended.
- 3 Slight epitope sensitivity with the use of the papain-based kit; therefore, a further dilution of the enzyme mix is recommended.

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